WHAT IS CLAIMED IS:

1. A jacketed light emitting diode assembly, comprising:

a light emitting diode comprising

a contact set comprising a positive contact and a negative contact, each of the contacts having a first end portion and a second end portion; and

a lens body containing a semiconductor chip and the first end portions of the positive and negative contacts;

an electrical wire set comprising a first electrical wire and a second electrical wire electrically connected to the second end portions of the positive contact and the negative contact, respectively;

a light transmissive cover having a cavity with an opening, the cavity receiving the lens body, the opening having at least one of the contact set and the electrical wire set passing therethrough; and

an integrally molded plastic jacket at the opening of the light transmissive cover to provide a seal at the opening against moisture and airborne contaminants.

2. A jacketed light emitting diode assembly according to claim 1, wherein electrically connected portions of the contact set and the electrical wire set are encased by the integrally molded plastic jacket to provide a seal against moisture and airborne contaminants.

3. A jacketed light emitting diode assembly according to claim 1, wherein the electrical wire set passes through the opening, and wherein the integrally molded plastic jacket encases respective regions of the electrical wire set passing through the opening.

4. A jacketed light emitting diode assembly according to claim 1, wherein the contact set passes through the opening, and wherein the integrally molded plastic jacket encases electrical connections between the contact set and the electrical wire set.

5. A jacketed light emitting diode assembly according to claim 1, wherein the integrally molded plastic jacket comprises at least one of polycarbonate, polystyrene, and other moldable plastic material.

6. A jacketed light emitting diode assembly according to claim 1, wherein the integrally molded plastic jacket comprises a plastic selected from poly(vinyl chloride).

7. A jacketed light emitting diode assembly according to claim 1, wherein the integrally molded plastic jacket comprises polypropylene.

8. A jacketed light emitting diode assembly according to claim 1, wherein the light transmissive cover is at least partially encased by the integrally molded plastic jacket.

9. A method for making a jacketed light emitting diode assembly, comprising:

providing a light emitting diode comprising a positive contact and a negative contact of a contact set, each of the contacts having a first end portion and a second end portion, and a lens body containing a semiconductor chip and the first end portions of the positive and negative contacts;

electrically connecting a first electrical wire and a second electrical wire of an electrical wire set to the second end portions of the positive contact and the negative contact, respectively;

inserting the light emitting diode through an opening and into a cavity of a light transmissive cover, the opening having at least one of the contact set and the electrical wire set passing therethrough; and

molding a plastic jacket integrally at the opening of the light transmissive cover to provide a seal at the opening against moisture and airborne contaminants.

10. A method according to claim 9, wherein electrically connected portions of the contact set and the electrical wire set are encased by the integrally molded plastic jacket to provide a seal against moisture and airborne contaminants.

11. A method according to claim 9, wherein the electrical wire set passes through the opening, and wherein the plastic jacket encases respective regions of the electrical wire set passing through the opening.

12. A method according to claim 9, wherein the contact set passes through the opening, and wherein the plastic jacket encases electrical connections between the contact set and the electrical wire set.

13. A method according to claim 9, wherein the plastic jacket comprises at least one of polycarbonate, polystyrene, or other moldable plastic material.

14. A method according to claim 9, wherein the plastic jacket comprises a plastic selected from poly(vinyl chloride).

15. A method according to claim 9, wherein the plastic jacket comprises polypropylene.

16. A method according to claim 9, wherein the light transmissive cover is at least partially encased by the integrally molded plastic jacket.

17. A method according to claim 9, wherein said molding comprises injection molding the plastic jacket in a mold cavity.

18. A light string comprising a plurality of light emitting diode assemblies connected to one another, the light emitting diode assemblies comprising a plurality of jacketed light emitting diode assemblies, comprising:

a light emitting diode comprising

a contact set comprising a positive contact and a negative contact, each of the contacts having a first end portion and a second end portion; and

a lens body containing a semiconductor chip and the first end portions of the positive and negative contacts;

an electrical wire set comprising a first electrical wire and a second electrical wire electrically connected to the second end portions of the positive contact and the negative contact, respectively;

a light transmissive cover having a cavity with an opening, the cavity receiving the lens body, the opening having at least one of the contact set and the electrical wire set passing therethrough; and

an integrally molded plastic jacket at the opening of the light transmissive cover to provide a seal at the opening against moisture and airborne contaminants along a length of the light string.

19. A light string according to claim 18, wherein electrically connected portions of the contact set and the electrical wire set are encased by the integrally molded plastic jacket to provide a seal against moisture and airborne contaminants.

20. A light string according to claim 18, wherein the electrical wire set passes through the opening, and wherein the integrally molded plastic jacket encases respective regions of the electrical wire set passing through the opening.

21. A light string according to claim 18, wherein the contact set passes through the opening, and wherein the integrally molded plastic jacket encases electrical connections between the contact set and the electrical wire set.

22. A light string according to claim 18, wherein the integrally molded plastic jacket comprises at least one of polycarbonate, polystyrene, or other moldable plastic material.

23. A light string according to claim 18, wherein the integrally molded plastic jacket comprises a plastic selected from poly(vinyl chloride).

24. A light string according to claim 18, wherein the integrally molded plastic jacket comprises polypropylene.

25. A light string according to claim 18, wherein the light transmissive cover is at least partially encased by the integrally molded plastic jacket.

26. A light string according to claim 18, the light emitting diode assemblies being adapted to be directly connected to an AC power source and providing a stable light source, the light string formed by a method of determining a workable number of light emitting diodes directly coupled in series to the AC power source to provide the stable light source, said method comprising the following steps:

determining an RMS voltage rating (V_{RMS}) of said AC power source;

determining an AC voltage rating for a particular type of light emitting diodes by determining an average voltage drop (V_{avg}) across said particular type of light emitting diode when connected to said AC power source;

calculating said workable number (WN) of said light emitting diodes according to the following formula

$WN=V_{RMS}/V_{avg}$; and

electrically interconnecting a plurality of said particular type of light emitting diodes equal to said workable number (WN) in series directly to said AC power source without any intermediate circuit altering devices.

27. A method for moisture sealing a light-emitting diode elements of a light string, comprising:

providing a light string comprising a plurality of light emitting diodes, the plurality of light emitting diodes comprising a positive contact and a negative contact of a contact set, each of the contacts having a first end portion and a second end portion, and a lens body containing a semiconductor chip and the first end portions of the positive and negative contacts;

electrically connecting a first electrical wire and a second electrical wire of an electrical wire set to the second end portions of the positive contact and the negative contact, respectively;

inserting the light emitting diode through an opening and into a cavity of a light transmissive cover, the opening having at least one of the contact set and the electrical wire set passing therethrough; and

molding a plastic jacket integrally at the opening of the light transmissive cover to provide a seal at the opening against moisture and airborne contaminants.

28. A method according to claim 27, wherein electrically connected portions of the contact set and the electrical wire set are encased by the integrally molded plastic jacket to provide a seal against moisture and airborne contaminants.

29. A method according to claim 27, wherein the plastic jacket comprises at least one of polycarbonate, polystyrene, or other moldable plastic material.

30. A method according to claim 27, wherein the plastic jacket comprises a plastic selected from poly(vinyl chloride).

31. A method according to claim 27, wherein the plastic jacket comprises polypropylene.

32. A method according to claim 27, wherein the light transmissive cover is at least partially encased by the integrally molded plastic jacket.

33. A method according to claim 27, wherein said molding comprises injection molding the plastic jacket in a mold cavity.

34. A method according to claim 27, further comprising determining a workable number of the light emitting diode assemblies directly coupled in series to an AC power source to provide a stable light source, said determining of a workable number comprising the following steps:

determining an RMS voltage rating (V_{RMS}) of said AC power source;

determining an AC voltage rating for a particular type of light emitting diodes by determining an average voltage drop (V_{avg}) across said particular type of light emitting diode when connected to said AC power source;

calculating said workable number (WN) of said light emitting diodes according to the following formula

$WN=V_{RMS}/V_{avg}$; and

electrically interconnecting a plurality of said particular type of light emitting diodes equal to said workable number (WN) in series directly to said AC power source without any intermediate circuit altering devices.